

## Section A. Identifying and Understanding the Target Audience

### 1. NEEDS ASSESSMENT METHODOLOGY & FINDINGS

#### **Needs Assessment Methodology**

*Describe and justify your methodology for assessing the needs of Food Stamp program eligibles in California*

Since Food Stamp Nutrition Education (FSNE) began at the University of California (UC) in FFY 1992 and expanded to the California Department of Health Services (CDHS) in FFY 1997, needs assessment methods have been continually upgraded to plan, run and evaluate California's large and diverse FSNE campaign. Initially, we built on available research and existing reporting systems. As targeting requirements became more specific, existing data sources were tailored for USDA's new requirements, additional surveys were tapped to provide needed information, and special reporting systems were developed.

**Demographics:** The first comprehensive State profile was developed by the Cancer Prevention and Nutrition Section (CPNS) in 1996 as part of a USDA planning grant and since then has been updated by using new information as it comes available, including the United States Department of Agriculture's *Food Stamp Characteristics Survey*, to illustrate the demographic characteristics of Food Stamp program eligibles in California. For FFY 2006 this section was supplemented with food insecurity data from the *Food Stamp Characteristics Survey* FFY 2002 Report, the 2003 *California Health Interview Survey (CHIS)*, target audience data from the 2000 Census, and the 2003-04 California Department of Education CalWORKS data. Additional data were compiled for the appendix and to help summarize the target audience. These include:

- Attachment 1 – Food Stamp Households, Ethnic Profile and Totals, by County
- Attachment 2 – 2000 Census Demographic Profile, <130% and <185% FPL, by Race/Ethnicity, Age, and Family Composition of Persons; Educational Attainment for Adults <125 % and <185 percent FPL, by County
- Attachment 3 – California FSNE Map, with *Network* Projects and UC FSNEP Sites, by County
- Attachment 4 – California FSNE Projects/Sites, with Eligible Individuals, Census Tracts, and Schools, by County
- Attachment 5 – Schools, >50% Free/Reduced Price Meals, by County
- Attachment 6 – Type and Location of Food Stamp Retailers, by Eligible Census Tracts, <130 percent FPL and <185 percent FPL
- Attachment 7 – Intra- and Inter-Governmental Infrastructure.

Specialized representative surveys with over-samples of the target population, questions added to larger representative surveys, UC's reporting system, and the *Network's* Semi-Annual Reporting System are used to provide needed information, as follows:

- The California Dietary Practices Survey of Adults (biennially, 1989 on)

- The California Teen Eating, Exercise and Nutrition Survey (biennially, 1998 on)
- The California Children's Healthy Eating and Exercise Practices Survey (biennially, 1999 on)
- The Behavioral Risk Factor Surveillance System (annual)
- The California Women's Health Survey (annual, 2000 on)
- The California Health Interview Survey (biennially, 2001 on)
- The *Network Communications Benchmark Survey* (annual, 2004 on)

**Diet, Physical Activity, and Food Insecurity:** The University of California-FSNEP program has continuously monitored needs since it began in 1992. The *Food Behavior Checklist (FBC)* is utilized for adults and the *Evaluation and Reporting System (ERS)* survey for youth. The *FBC* was developed to assess the diet, food-related skills and behavior practices of all individuals enrolled in the program. Of the 21 items in the *FBC*, 9 of them have been validated for fruit and vegetable consumption (Townsend, Kaiser, Allen, Joy, Murphy, *Journal of Nutrition Education and Behavior*, 35:69-82, 2003). Other questions assess food safety needs, food shopping needs, and other diet practices related indirectly to fruit and vegetable consumption (eating at fast food restaurants, drinking soda, high fat food consumption, drinking low-fat milk).

CPNS uses findings from the 1999, 2001, and 2003 *California Children's Healthy Eating and Exercise Practices Survey*, the 1998 and 2000 *California Teen Eating, Exercise, and Nutrition Survey*, the 1999, 2001, and 2003 *California Dietary Practices Survey*, and the 2004 *California Nutrition Network Benchmark Communications Survey* to monitor the nutrition-related behavioral and lifestyle characteristics of FSNE-eligibles, as compared with other Californians. The emphasis is on fruits, vegetables, physical activity, food insecurity, and –more recently– body weight. Over the past 15 years the CPNS surveys have advanced the evidence base for implementing large-scale, vertically integrated social marketing campaigns. Starting in 1995, oversampling has increased in order to better target low-income audiences for the purpose of providing support, guidance and redirection for Food Stamp nutrition education interventions.

### **Needs Assessment Findings**

#### **a. Demographic characteristics of Food Stamp program eligibles in California.**

*If information is available, discuss geographic location, race/ethnicity, age, gender, family composition, education, and primary language.*

**California's Profile of Food Stamp Program Participants:** Based on FFY 2002 information, the Food Stamp monthly caseload averaged 1.8 of California's 35 million people, of whom 1.1 million were children under age 16. The average child's age was 8.3 years, and the average age of head of household was 36.6 years. Among the 683,000 Food Stamp households, about 27,000—or 4 percent--were headed by a person over the age of 60, and 80,000—about 12 percent--were headed by a disabled person. The household size averaged 2.7 persons. Fifty percent of households included other persons not receiving Food Stamps, averaging 2.3 additional people. About 50 percent of

households received cash assistance in addition to Food Stamps, and just under a third (32 percent) of households also reported working for salary or wages.

The ethnicities of heads of households were Latino (34 percent), Caucasian (30 percent), African American (25 percent) and Other (10 percent), principally Vietnamese and other Asian or Pacific Islanders. The ethnicities of the recipients were 46 percent Latino, 21 percent Caucasian, 19 percent African American, and 13 percent Other. The heads of household were 76 percent women; non-citizens made up 9 percent of all recipients; and refugees made up 2 percent. Although there is no primary language information available specifically for Food Stamp participants, among low-income (<150% FPL) Californians over age 5, over 39% report Spanish and 23% report Asian or Pacific Island language's as their language spoken at home. (2000 U.S. *Census*)

Attachment 1 shows the ethnic breakdown of Food Stamp households for all California counties where the data are available.

**California's Profile of FSNE-Eligible Groups:** California's total state/federal FSNE effort includes the 1.8 million Californians who, in any given month, are receiving Food Stamps and the 8.2 million Californians (with gross incomes  $\leq$  185 percent Federal Poverty Level) who are defined by USDA FNS as FSNE-eligible. The groups are diverse and transitional because families struggling out of poverty typically have fluctuating incomes that make them intermittent participants in the Food Stamp Program. For community interventions, this income level harmonizes with eligibility levels of other means-tested programs such as WIC and reduced price school meals. Of the 10 million FSNE-eligible Californians, 3.6 million are under age 18, which is 40 percent of all California children.

Attachment 2 shows the demographic profile of individuals below 130% and 185% FPL including race/ethnicity, age, and family composition. Educational attainment is also provided for adults below 125 % and 185% FPL for all California counties. These data are invaluable when targeting counties with FSNE efforts to reach the diverse Food Stamp eligible population.

**Target Audiences:** The principal FSNE audiences are low-income families with children who comprise an estimated 81 percent of Food Stamp households. The attached California FSNE map shows where the *Network* projects and UC FSNEP intervention sites are serving Food Stamp eligible families (Attachment 3).

All 58 California counties receive services through the 11 *Regional Nutrition Networks*, and 51 counties have services from one or more Local Incentive Awardees, county programs or special projects. FSNE efforts are concentrated in locations demonstrating the most need based on the prevalence of FSP participation/eligibility, low-income census tracts, or school with high numbers of Free and Reduced Price school meals (Attachment 4). The direct service projects target the estimated 1,300 census tracts (of 7,000+ in the State) where  $\geq$  50 percent of the residents have incomes  $\leq$  185 percent of the federal poverty level (see Attachment 4), other venues serving large numbers of low-

income people, and the estimated 4,200 schools (of 9,200+ in the State) where  $\geq 50$  percent of the students qualify for FRPM (Attachment 4 and 5). English and Spanish are the primary languages used, but services are also available in 20 other languages. Since low-income Californians reside in economically dispersed communities, with only 44 percent of Food Stamp participants and 37 percent of the larger FSNE-eligible population living within census tracts that qualify for FSNE, it is critical to find effective ways to target them through media, retail, worksites, faith organizations, and other suitable channels.

California's FSNE programs at UC-FSNEP and CPNS have developed and used the surveys and data sets listed above to set their objectives, monitor change, and evaluate results for the targeted low-income segments. UC-FSNEP and CPNS both maintain reporting systems that document the type and amount of intervention activity being offered to FSNE populations. By 2003, state surveys begin indicating positive dietary and physical activity changes in the lowest income segments. Since these changes were not seen in the non-targeted groups, this suggests that the combined effects of statewide, regional, and local FSNE interventions are changing behavior. These new results are described more fully in Section B of the Introduction, below.

**b. Nutrition-Related Behavioral and Lifestyle Characteristics of Food Stamp Eligible Children, Adolescents, and Adults in California.** *If information is available, discuss implications of dietary and food purchasing habits and where and how food stamp eligibles eat, redeem food stamp benefits, live, learn work and play in your State.*

### **CALIFORNIA CHILDREN**

**Low-Income Children Need to Continue Improving Their Fruit and Vegetable Consumption:** Findings from the representative 2003 *CalCHEEPS* (N=632) indicated that 9- to 11-year-old children who reside in households receiving Food Stamps averaged 4.3 servings of fruits and vegetables (FV) on a typical school day with half meeting the recommended *5 a Day* goal that was current during those years. This compares to only 3.1 servings and 23 percent, respectively, among other children in the State. Over the past 5 years, as *Network* and UC-FSNEP interventions aimed at elementary school children have increased, the surveys have documented significant increases in *Campaign* recall and FV consumption among children from Food Stamp homes, while FV intake among higher income children in the State has remained the same. At baseline in 1999 (N=814), the differences between the two groups were not statistically significant.

**Low-Income Children Need Improved School Environments to Facilitate Healthy Lifestyles:** For California, the average daily student participation in the national school lunch program is 2.8 million of whom 75 percent receive F/RP meals (*State of the States 2005*). State surveillance showed that most children from homes using Food Stamps ate school lunch 3 or more times in the past week (96 percent), with over three-quarters (78 percent) eating school lunch daily (compared with Others at 50 and 36 percent, respectively; 1999 *CalCHEEPS*). School meal program participation was positively

related to FV consumption ( $p < .001$ ). Higher participation in the school meal programs will help increase FV intake among low-income children.

While many children from Food Stamp homes utilize the school meal program, only about half reported getting nutrition lessons (43 percent) and lessons on exercise and health at school (50 percent) compared to 57 and 68 percent, respectively, among Other children (2003 *CalCHEEPS*). Low-income children (with a household income  $\leq$  \$19,999) also reported much higher rates of experiencing barriers at school related to healthy eating (1999 *CalCHEEPS*).

- Eighteen percent reported access to vending machines with chips and candy (compared with 2 and 9 percent among middle and higher income groups).
- One-quarter reported access to soda vending machines (compared with 11 and 15 percent among middle and higher income groups).
- One-third reported that their school cafeteria served fast food (compared with 21 and 23 percent among middle and higher income groups).

**Low-Income Children Need to Eat Less High Calorie, Low Nutrient Foods:** Seventy-seven percent of children from Food Stamp homes reported consuming fast food at least once in the past week with almost three-quarters (73 percent) eating fast food two or more times, compared with 35 percent among others (2003 *CalCHEEPS*). The majority of low-income children (65 percent) living in Food Stamp households said fast food was their favorite type of restaurant compared with 45 and 35 percent among middle and higher income groups (1999 *CalCHEEPS*). Additional findings showed that children from Food Stamp households ate 5 servings of high calorie, low nutrient foods **other than fast food** on a typical school day compared with 4.3 servings among others. The most common item was sweets (2.1 servings), followed by soda/sweetened beverages (1.6 servings) and high-fat snacks (1.3 servings).

**Low-Income Children Need to Continue Improving Their Physical Activity:** For physical activity (PA), the 2003 *CalCHEEPS* revealed that nearly two-thirds of children from homes using Food Stamps (63 percent) reported meeting the recommendation to get 60 minutes or more of moderate and vigorous daily physical activity compared with 52 percent of Other children. Only one-third of low-income children (32 percent;  $\leq 185$  percent FPL) believed 60 or minutes of daily PA is needed for good health, with the belief being least common among African-American and Latino children (25 and 29 percent, respectively) compared with White children (46 percent; 2004 *California 5 a Day Benchmark Campaign Survey*). Over the past 5 years, *CalCHEEPS* has documented a statistically significant 22 percentage point increase in PA among children from Food Stamp homes (beginning at only 41 percent meeting the PA goal in 1999).

**Low-Income Children Need to Reduce Their Sedentary Activity:** On average, however, low-income children (with a household income  $\leq$  \$19,999) report spending 128 minutes per day watching television or playing video/computer games for fun, while only 66 percent meet the *Healthy People 2010* guideline for 2 or fewer hours of daily sedentary activity. This contrasts with 91 and 80 minutes and 79 and 82 percent among middle and higher income children, respectively.

**Low-Income Children Need to Eliminate Disparities in Healthy Weight:** Rates of at-risk and overweight were 50 percent higher for children from Food Stamp homes. While 37 percent of children from higher income families reported heights and weights placing them as overweight or at risk of overweight, half of the children from Food Stamp did so, with 34 percent at risk and 16 percent already overweight.

**Low-Income Parents Need Support to Help Their Children Achieve a Healthy Lifestyle:**

Children who reside in households receiving Food Stamps were significantly less likely than other children to feel that:

- Their parents buy the types of FVs they like ( $p < .01$ ),
- Their parents eat lots of FVs ( $p < .01$ ),
- Their parents ask them what school is teaching them about nutrition and health ( $p < .05$ ), and
- Their parents say something nice to them when they exercise a lot ( $p < .05$ ).

These children were significantly more likely to feel that:

- Their parents eat lots of high-fat foods like french fries, chips, and desserts ( $p < .01$ ).

**CALIFORNIA ADOLESCENTS**

**California Teens Need to Increase Fruit and Vegetable Consumption:** The 2000 *California Teen Eating, Exercise and Nutrition Survey (CalTEENS)* ( $n=1215$ ) was drawn to be representative of the 2,890,133 (2000 *US Census*) 12- to 17-year-old teens residing in California. From 1998 to 2000, total consumption of fruits and vegetables among teens increased from 4.3 to 4.5 servings but dropped from 4.4 to 4.1 servings in African Americans. In 2000, Latino and Asian teens reported eating fewer servings of fruits and vegetables than Whites, with 4.5 servings for Latino and 4.2 servings for Asian teens compared to 4.7 servings among Whites. Of the 4.5 total servings of fruits and vegetables consumed by California teens, only 1.1 servings were from vegetables or salads, one-third or less than the recommended amount for this age group. Only 35 percent of California teens met the then-current minimum recommendation for fruit and vegetable intake (5 servings for girls, 7 for boys) with over half reporting no vegetables or salads in their diet yesterday.

In 2000, ten percent of all Californians below 185% FPL were 12- to 17-year-old adolescents. This includes over one million teens. Eighty-one percent of low-income adolescents were non-white (2000 *US Census*), demonstrating the disproportionate number of non-white teens who are poor in California. As with many other teen surveys, the 1998-2004 *CalTEENS* did not ask for family income. However, since minority youth are much more likely to be low-income than Caucasians ( $\leq 185\%$  FPL: 50 percent of African American and 54 percent of Latino teens vs. 19 percent of White teens; 2000 *US Census*), we use minority status as a proxy indicator for FSNE eligibility. Reported hunger is also an indicator of FSNE eligibility and is more prevalent among teen minorities. Low-income and minority teens are also more likely to eat school meals.

The use of *CalTEENS*' hunger questions and subgroups, such as minority status and school meal participation, provides some insight into the low-income teen population in California. In 2000, 13 percent of Asian, 11 percent of Latino, and 10 percent of African American teens reported being hungry because "there was not enough food in the house," which is double or triple the percent reported by Whites (4 percent). Ninety-five percent of teens who ate school breakfast reported eating no fruits, vegetables, or juice at breakfast yesterday.

**Teen Overweight and Obesity Needs to Decrease; Rises in Weight Are Alarming:** In 2000, 25 percent of teens were at-risk (BMI  $\geq$  85<sup>th</sup> percentile but  $<$  95<sup>th</sup> percentile) or already overweight (BMI  $\geq$  95<sup>th</sup> percentile), an increase from 21 percent in 1998 (1998 and 2000 *CalTEENS*). The percent of Latino teens who were at-risk or already overweight increased from 25 percent in 1998 to 34 percent in 2000 (1998 and 2000 *CalTEENS*), a jump of 9 percentage points in just two years.

**Teen Physical Activity Needs to Increase; Rates Appear to Be Dropping Dramatically:** In 2000, only 40 percent of teens reported getting one or more hours of physical activity each day (2000 *CalTEENS*). The percentage of African American teens active for more than an hour per day dropped from 44 percent in 1998 to 33 percent in 2000 (1998 and 2000 *CalTEENS*). The percentage of Asians/Other races also decreased from 42 percent in 1998 to 33 percent in 2000 (1998 and 2000 *CalTEENS*).

## **CALIFORNIA ADULTS**

**Low-Income Adults Are Food Insecure:** Among adults with incomes  $<$ 200 percent FPL, the 2003 California Health Interview Survey found an increase of 5 percentage points in food insecurity between 2001 and 2003. More than 10 percent of adults reported experiencing food insecurity with hunger – and increase of 2 percentage points – and an additional 24 percent were food insecure without hunger. It projected that 2.9 million low-income adults could not always afford to put food on the table, while more than 1 in 10 adults with incomes  $<$ 200 percent FPL experienced episodes of hunger. The United States Department of Agriculture estimates food insecurity in California at 12.2 percent, significantly higher than the national rate of 11 percent (2001-03).

**Low-Income Adults Need to Improve Their Fruit and Vegetable Intake:** Many published studies by faculty at the University of California have shown that fruit and vegetable consumption practices of low-income Food Stamp families are below the national recommendations (Joy, *California Agriculture*, 58:206-208, 2004; Joy, Feldman, Fujii, Garcia, Metz, *California Agriculture*, 53:24-28, 1999; Lamp, West, George, Wright, and Joy, *Journal of Nutrition Education*, 31:941-98, 1999; Joy and Dowdy, *Journal of Nutrition Education*, 28: 123-126, 1996; Townsend, Kaiser, Allen, Joy, Murphy, *Journal of Nutrition Education and Behavior*, 35: 69-82, 2003; West, Lamp, Joy, Murphy, *California Agriculture*, 53:29-32, 1999; Heneman, Zidenberg-Cherr, Joy, Donahue, Garcia et al., *Journal of Amer. Dietetic Assoc.*, 2005). Dietary behavior practices have been measured over the last 10 years in 1,447 Food Stamp clients enrolled

in the University's nutrition education program. Published results demonstrate that over 70 percent of Food Stamp clients need to improve their dietary intake of fruits and vegetables (Joy, *California Agriculture*, 2004). In addition, a number of dietary factors that are also indicative of the need for nutrition education include: consumption of a high fat diet by >70 percent of clients; consumption of a diet high in sugar and low in calcium, and a high consumption of soda beverages (instead of water or milk) among adults and youth (Joy, *California Agriculture*, 2004). A diet rich in folate foods (which include fruits and vegetables) is also needed in these families (Clifford, Noceti, Joy, Block, Block, *Journal of Nutrition*, 124: 137-143, 2005).

For California's total population, the 2001 *California Dietary Practices Survey (CDPS)* of 1,561 adults revealed that very low-income adults (households less than \$15,000) consumed, on average, only 3.5 servings of fruits and vegetables daily, compared to 4.1 servings for persons with the highest incomes who reported the most servings. Similar to studies conducted by UC, only 28 percent of the very low-income adults met the then-current recommended 5 servings a day minimum, while 36 percent of the highest income group did so. Among the very low-income adults, 44 percent consumed 2 or fewer servings of fruits and vegetables, but only 34 percent who ate 2 or fewer were in the highest income group.

However, there are indications that trends are shifting in FSNE adults. Comparing data from our 1997 *Network* baseline to the most recent 2003 CDPS reveals an 8 percentage point increase (from 24 to 32 percent) in low-income adults who ate 5 or more servings, compared with the 5 percentage point increase seen in the statewide population (33 to 38 percent) and 1 percentage point decrease nationwide (24 to 23 percent; 1996-2003 *BRFSS*).<sup>1</sup> Similarly, while only 20 percent of the very low-income adults had heard that fruits and vegetables help prevent heart disease, this compares favorably with the statewide average of 23 percent. However, only 38 percent had heard that fruits and vegetables helped to reduce the risk of cancer, compared to the statewide average of 51 percent. (2001 *CDPS*), signaling a need for continued education.

The first *Network Communications Benchmark Survey* in 2004 assessed the awareness of the potential benefits of fruits and vegetables in special samples of Food Stamp participants. The great majority of Food Stamp recipients strongly agreed that eating fruits and vegetables helped them look and feel better (80 percent), control their weight (77 percent) and set a good example for their family (91 percent).

**Low-Income Adults Need Increased Availability of Fruits and Vegetables; Cost Is a Significant Barrier:** Like adults generally, low-income adults reported many barriers to eating more fruits and vegetables (2001 CDPS). A large majority of low-income adults reported fruits and vegetables were hard to buy in fast food places (80 percent) and hard to get at work (65 percent). In addition, more than half of low-income adults stated that fruits and vegetables were too expensive (51 percent). This percentage is much higher than either the 17 percent of adults in the highest income group (\$50,000 or more) or the

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<sup>1</sup> Caution is warranted when drawing direct comparisons between national and state data because different data collection methods are used.



state average (32 percent). Even more striking results were reported in the 2004 *California 5 a Day Campaign Benchmark Survey* which found that the cost of fruits and vegetables was an important perceived barrier for Food Stamp recipients (39 percent), almost four times higher than the general population (11 percent). The ability to find good fresh fruits and vegetables was also a barrier reported by 24 percent of Food Stamp recipients (2004 *Network Communications Benchmark Survey*).

**Low-Income Adults Need to Decrease Fast Food Intake:** Like other adults, those with low incomes eat many meals away from home. The 2003 Final Report to the USDA (Joy, Benford, UC-FSNEP Final Report, December 2003) includes results on a number of indicators related to eating out in fast food restaurants. For 3,664 participants who completed the Food Behavior Checklist (FBC), over 80 percent reported that they ate at fast food restaurants 3 or more times a week.

The 2001 *California Dietary Practices Survey* also found that on a typical day about half of low income adults (49 percent) who ate meals outside of the house ate at fast food establishments, as compared with 35 percent of adults having a household income of \$50,000 or more. This is significant because, for all adults eating fast food, the average consumption of fruits and vegetables was only 3.2 servings, significantly lower than the 4.0 servings consumed by those who did not eat out at fast food places. ( $p < 0.001$ ; 2001 *CDPS*).

**Low-Income Adults Want and Need Help Improving Food Preparation and Shopping:** Published results for a study of the food preparation practices of 97 low-income clients reported that most low-income families would benefit from nutrition education. Adequate cooking skills are needed to prepare low-cost, nutritious meals that meet current dietary guidelines (West, Lamp, Joy, Murphy, et al., *California Agriculture* 53:29-32, 1999). Focus groups conducted before the study indicated that low-income families are greatly interested in learning new ways to prepare foods, especially fruits and vegetables and low-fat recipes.

While only one-third (37 percent) of low-income adults surveyed in the 2001 *California Dietary Practices Survey* read the food section of their newspaper, most (61 percent) reported using weekly supermarket specials in the newspaper. The most typical answer for frequency of shopping was 3-4 times/month (44 percent), with 29 percent shopping more than once a week and 27 percent shopping no more often than 1-2 times/month. This is compared with the shopping habits of high income adults (household income of \$50,000 or more) where a greater percentage (42 percent) reported shopping more than once a week, a behavior that correlates with higher FV consumption.

**Low-Income Adults Need to Increase Physical Activity and Safety; Cost Is a Significant Barrier:** There were few differences between Food Stamp recipients and other Californians, except for financial barriers. Forty percent of Food Stamp recipients reported engaging in physical activity at least five days a week for at least 30 minutes, similar to levels in the general population (42 percent). A little more than one-third indicated that they were engaged in physical activity fewer than five days a week and 15

percent were inactive, compared with 37 percent and 10 percent, respectively, among the general population. Food Stamp recipients between the ages of 25 and 29 years were significantly more likely to report engaging in the recommended level of activity than the other age groups. Surprisingly, the majority (80 percent) of the Food Stamp recipients said they were sure that they could achieve the recommended amount of at least 30 minutes of physical activity a day. This was similar to the responses of the general population (84 percent) (2004 *California 5 a Day Campaign Benchmark Survey*)

That said, a major barrier to increasing physical activity was the lack of safe places where Food Stamp users lived (28 percent), which was less of a concern to the general population (16 percent). Lack of time was a barrier common to Food Stamp recipients and the general population (27 and 30 percent, respectively). Interestingly, cost of exercise clothes, equipment, and gym memberships was barrier reported by over half of all respondents, but it had a bigger impact on Food Stamp recipients than the general population (74 vs. 58 percent). (2004 *California 5 a Day Campaign Benchmark Survey*)

**Low-Income Adults Disparities in Overweight/Obesity Must Be Eliminated:** Low-income Californians, as well as certain ethnic groups, have higher rates of overweight and obesity. The 2001 *California Dietary Practices Survey* found that 18 percent of very low income adults were obese, compared to the 14 percent of adults in the highest income category (\$50,000 or more). African Americans and Hispanics had a higher rate of obesity than their White counterparts (23 percent and 20 percent, respectively, vs. 15 percent). Education level was also significantly associated with overweight status ( $p < .01$ ). Adults who graduated from high school or had less than a high school education had rates of obesity almost twice that of college graduates (20 percent, 20 percent, and 12 percent respectively).

Poor diet and physical inactivity, as expressed by obesity and overweight, is a significant preventable cause of death. In California physical inactivity, obesity, and overweight was estimated to cost a total of \$21.7 billion in related health care costs in California in year 2000 dollars and is estimated to increase to \$28 billion in 2005.<sup>2</sup> Illnesses and costs from diet- and physical activity-related diseases are known to be disproportionately high among certain ethnic groups and persons with lower incomes.<sup>3</sup>

**Low Income Adults Need Better Access to Fruits and Vegetables:** The great majority of Californians (84 percent) report they get most of their fresh fruits and vegetables from supermarkets/grocery stores, while 10 percent report using farmers' markets and just 4 percent grow them at home (2001 *CDPS*). Low-income (<\$15,000) and Food Stamp recipients most frequently identified a specific large supermarket chain ( $\geq 10$  stores) as the principal source of their fresh fruits and vegetables. .

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<sup>2</sup> Chenoweth, D. (2005). *The economic cost of physical inactivity, obesity, and overweight in California adults during the year 2000: a technical analysis*. Sacramento, CA: California Department of Health Services, Cancer Prevention and Nutrition Section and Epidemiology and Health Promotion Section.

<sup>3</sup> U.S. Department of Health and Human Services, Center of Disease Control and Prevention (2004, August 27). REACH 2010 Surveillance of Health Status in Minority Communities—United States, 2001-2002. *Morbidity and Mortality Weekly Report*, 53 (SS06).

In California, Food Stamp participants may redeem their Food Stamp benefits at over 17,000 Food Stamp-certified retail establishments, including convenience stores, drug stores and health food stores (Attachment 6). However, the great majority of Food Stamp dollars in California (84%) are redeemed at certified retailers classified as supermarkets. Certified supermarkets are less common in low-income than higher-income areas. For example, supermarkets represent almost a quarter (23%) of the Food Stamp certified retailers, but in USDA eligible census tracts ( $\geq 50\%$  185% FPL) only 12% of the certified retailers are classified as supermarkets suggesting that most Food Stamp participants must have to patronize supermarkets outside FSNE-qualified census tracts.

Convenient access to good quality and affordable fruits and vegetables is an issue for many low-income Californians. A report by the Urban and Environmental Policy Institute at Occidental College in Los Angeles found middle and upper-income neighborhoods had 2.3 times as many supermarkets as low-income neighborhoods. Similarly, a study in three California counties found only 52 percent of residents in low-income areas lived within one-half mile (walking distance) of a supermarket (Transportation for Healthy Communities Collaborative, 2002). Even when available, the quality and selection of the fruits and vegetables may not be adequate to meet low-income consumers' preference and need. Of the 1,297 targeted census tracts ( $\geq 50\%$  185% FPL), 676 (52%) do not include a supermarket, farmer's market or produce stand. These realities help explain the findings of USDA studies (Ohls, et. al, 1999) that Food Stamp participants tend to use their benefits in areas other than those in which they live. In addition, 56 percent of California's Food Stamp participants and 63 percent of persons with incomes  $< 185\%$  FPL do not live in FSNE eligible census tracts.

**Public Awareness and Use of the Food Stamp Program Needs to Increase:** According to the most recent USDA participation rates, only half (49 percent) of the people who are eligible for Food Stamps in California receive them (Castner, et. al, 2005). Research has shown eligible persons often do not participate in the Food Stamp Program because they are not aware of the program or they do not believe they are eligible. Integrated into regular nutrition education activities, *Network* projects provide Food Stamp Program promotional materials and information about the benefits and about the Food Stamp Program. Given the tremendous number of contacts with low-income persons, these promotional efforts can help increase awareness of the Food Stamp Program as an important potential source of nutrition assistance for households struggling to be food secure.

**c. Other Nutrition-Related Programs Serving Low-Income Persons in California.**

*Discuss the availability of other nutrition-related programs, services, and social marketing campaigns (i.e., EFNEP, Child Nutrition services, etc).*

**Facts and Figures:** California defies easy description. Our rapidly growing population now exceeds 35 million people, comprising 12 percent of the U.S. total and being more than 50 percent larger than that of the next most populous state. We are home to nearly one-third of the nation's immigrants, making us the most ethnically and racially diverse state in the nation. Our land mass is exceeded only by Texas and Alaska, and our rich agriculture base is challenged by population growth and urban sprawl. Our local

government infrastructure includes 58 counties, 470 cities, over 1,000 school districts, over 10,700 schools, and numerous other special districts for parks, community colleges, and assorted local services. There are almost 100 independent Indian reservations and numerous rancherias, e.g., tribal organizations. In spite of an economy cited as being fifth to eighth largest in the world, we have experienced deep budget deficits and eroding support for many public programs over the past two decades. Rates of food insecurity, already higher than the national average, rose significantly in 2003, the most recent year available. High costs of living are driven by housing, utilities and transportation, placing considerable stress on families' discretionary food budgets.

**Trends in Large-Scale Nutrition Education Efforts:** California is a bellwether state for many trends, including nutrition interventions. Our progressive tradition began in the 1930's with agriculture marketing statutes that included nutrition education. It continued mid-century with State augmentations to federal funding for school meals and nutrition education. This matured in the 1980's and 1990's with help from federal grants that allowed the development of innovative social marketing campaigns, one of which is the *California 5 a Day Campaign*, now the world's largest public/private nutrition partnership for chronic disease prevention through nutrition. Our cultural diversity and favorable agriculture conditions play out in cuisine that blends ingredients and practices from around the world. California is fortunate to have foundations and non-profit organizations that provide services, advocacy and leadership for nutrition, physical activity, and food security, much of which targets lower-income groups and communities.

**Funds for Nutrition Education within California Government:** USDA's 2006 *FSNE Guidance* asked for a complete summary of each state's nutrition education activities. California's State agencies administer federal categorical programs that include nutrition education, principally through USDA, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention. Some State General Fund and State Special Fund categorical programs allow local contractors to include nutrition education as an option through "local assistance" funding to units of local government and through competitive grants to public and non-profit organizations. Over the past decade as concern about obesity has risen, so too has the allocation by county, school district, and other local governments of local and State funds for nutrition education. By far, most of these funds appear to be targeting lower-income groups and communities. In spite of and increasing number of state laws on school nutrition policies, however, this has not yet translated into earmarked State funds for nutrition education.

**State-Local Relationships:** In five different State departments, State staff administer a variety of categorical programs, provide leadership and technical assistance, coordinate program efforts, and oversee fiscal accountability of the local agencies that deliver the programs. State staff do not provide direct services to consumers. State staff encourage contractors to use evidence-based or evidence-informed programs, they develop new interventions when appropriate, and they facilitate taking the best interventions to-scale in order to reach large numbers of Californians as effectively, efficiently and rapidly as possible. State staff work with large numbers of external stakeholders to determine "what" needs to be accomplished, then local partners decide "how", as much as possible

drawing from a menu of promising or proven interventions. There is progress but as yet no single clearinghouse for nutrition education materials and campaigns specifically targeted FSNE-eligible audiences.

**Building an Infrastructure for Nutrition Education that Helps Lower-Income Families with Children:** As described above, California is under growing pressure to deal more effectively with the problems of poor diet, physical inactivity, food insecurity, and overweight/obesity. However, like many states and the federal government itself, its infrastructure is still fragmented. In 2002, the *Network* commissioned the Center for Research on Women and Families, a small policy think tank, to produce a *Primer* that would compile information about nutrition programs for program leaders at the state and local levels. The purpose was to help all stakeholders understand California's nutrition infrastructure, optimize the use of federal categorical programs, and work together in coordinating resources and programs to fill gaps, specifically for low-income communities and FSNE-eligible populations. Released in 2004, *Understanding Nutrition*, a 48-page document available at [www.ccrwf.org](http://www.ccrwf.org), provides an extensive summary of California's largest federally-funded, state-administered nutrition programs.

#### **AVAILABILITY OF OTHER NUTRITION RELATED PROGRAMS SERVING LOW-INCOME CALIFORNIANS**

This section will provide highlights from the *Primer*, from a DHS inventory of nutrition and physical activity programs, and from our knowledge of other governmental organizations that focus on lower-income families and children. We focus on State government programs. This information has been used in setting priorities for the ongoing FSNE state plan. For each state program or organization described below, we have generally identified funding sources and the program's relation to the *Network* or to low-income issues; the annual reach/participation, budgets, and exact service locations were not uniformly available. Some websites are listed. Organizations in the non-profit and federal government sectors, as well as intra-governmental efforts to convene stakeholders and help coordinate statewide efforts, are described in Attachments 8 and 9.

While there is considerable activity and leadership within State government, apart from the new budget item to support a DHS coordinator, there are as yet no State funds earmarked for nutrition education and physical activity to prevent obesity in low-income populations or the general public.

#### **CATEGORICAL PROGRAMS OPERATED BY CALIFORNIA STATE GOVERNMENT**

##### **\* Department of Social Services**

The **Emergency Food Assistance Program** does not require or provide funding for nutrition education.

The **California Food Assistance Program** does not require or provide funding for nutrition education.

### **\* Department of Health Services**

California's **WIC Program** provides statewide services through 82 local agencies and serves an estimated 1,320,000 mothers, infants and children each month, with over 60 percent of all infants California born each year being eligible. Core nutrition education efforts include an estimated \$54,778,000 spent on nutrition education and \$20,490,000 for breastfeeding promotion. Based on successful experience with the federally-funded *Fit WIC!* Pilot project, California is expanding its efforts to meet the state's needs for obesity prevention in young children, and it is providing staff leadership for SNAP. [www.wicworks.ca.gov](http://www.wicworks.ca.gov)

The **Maternal, Child and Adolescent Health Branch** has funded special projects in nutrition, and obesity prevention is in the top 10 priority health indicators for federal Title V state plans. Most MCAH resources are directed to low-income groups; as yet the California MCAH Program has not defined a requirement for nutrition education.

The **Children's Medical Services (EPSDT)** has long provided State funds and exceeded federal requirements by mandating nutrition assessment and anticipatory guidance in nutrition for the estimated 3,391,953 low-income children and youth receiving preventive health care billed through the Child Health and Disability Prevention Program. A number of counties employ public health nutritionists to work with CHDP health care providers; nutrition education is loosely coordinated through this group. In the last year, CHDP re-directed its State in-kind away from the *Network* to Medicaid in order to receive a higher rate of federal matching funds.

**California Project LEAN** focuses on changing school nutrition and physical activity policies in about 15 school districts and on promoting 1 percent or less fat milk to Spanish-speaking, low-income mothers in four geographic areas. Its funding which totaled about \$1.7 million in 2004 is provided through the CDC Prevention Block Grant, the *Network*, The California Endowment, and the Vitamin Anti-Trust Settlement. Much of its effort targets low-income communities. [www.californiaprojectlean.org](http://www.californiaprojectlean.org)

**The California Center for Physical Activity** works through alliances to provide mini-grants, technical assistance, and model programs, including Walkable Community Workshops, a Healthy Transportation Network, and California's Walk to School headquarters. The Center is primarily funded by the Centers for Disease Control and Prevention, Preventive Health & Health Services Block Grant. Other funding sources include Caltrans-Federal transportation enhancement, the Robert Wood Johnson Foundation, the Archstone Foundation, and the California Wellness Foundation. *Network* funding will not continue into 2006. For more information, visit [www.ca-takeaction.com](http://www.ca-takeaction.com) or [www.hds.cahwnet.gov/epic/sr2s/](http://www.hds.cahwnet.gov/epic/sr2s/)

**California Obesity Prevention Initiative** works to create environments and policies that support physical activity and healthy eating for all Californians. Its new toolkit, *Do More. Watch Less*, is aimed at teens and their helpers. Annual funding of about \$275,000 is provided through California's Prevention Block Grant from CDC. This unit is also the DHS home of **School Health Connections**, a CDC-funded coordinated school health initiative that focuses on nutrition, physical activity, and tobacco control. For more information, visit [www.dhs.ca.gov/ps/cdic/copi](http://www.dhs.ca.gov/ps/cdic/copi).

The state-funded **Preventive Health Care for the Aging Program** funds 14 county health departments so public health nurses can offer prevention services to well-elderly persons in mostly low-income community settings. The program's protocol

requires nutrition education and physical activity promotion, not medical nutrition therapy. PHCA provides state in-kind through the *Network* in order to increase the amount of nutrition education it can offer.

The Cancer Detection Section's **Breast Cancer Early Detection Program** uses State and federal funds to support 10 regional partnerships that offer nutrition education with screening services to low-income older women; it also has a grant from CDC to evaluate *WISEWOMAN* for Spanish-speaking women.

**\* Department of Aging** – Eligible California senior citizens may receive a cash benefit in lieu of Food Stamps, so few seniors receive Food Stamps. Since its target segment consists of low-income families with children, the *Network* has not linked its statewide nutrition education services with those provided through the Older Americans Act. However, the following nutrition programs serve seniors who may be part of Food Stamp households and who may receive nutrition education through local *Network* partners:

The **Congregate Meal Program** provides meals to seniors 60 years and over in group settings; many sites are in low-income neighborhoods.

The **Home-Delivered Meal Program** provides meals to housebound seniors.

The **Brown Bag Program** provides surplus and donated fresh produce and other food products monthly to low-income seniors at community sites.

The **Senior Farmers' Market Nutrition Program** provides a \$20 coupon annually to low-income seniors at certified farmers' markets.

**\* University of California**

**Center on Weight & Health, UC Berkeley** – Now housed jointly by the College of Natural Resources and the School of Public Health, the Center conducts research, provides training and technical assistance, especially in the area of evaluation, and participates in a variety of advocacy activities, principally in the area of childhood obesity prevention and control. It is funded through the University, government and foundation grants and contracts. For more information, visit [www.nature.berkeley.edu/cwh](http://www.nature.berkeley.edu/cwh).

**Center for Social Marketing and Nutrition, UC Davis** – Funded initially by California's Cancer Research Program to assist DHS social marketing campaigns, the Center now provides training and technical assistance to *Network*-funded agencies, maintains a unique, on-line inventory of community nutrition and physical activity assessment instruments, and conducts applied research with *Network* partners, mostly focusing on understanding problems of fruit and vegetable promotion and access in low-income communities. More information is available at [www.socialmarketing-nutrition.ucdavis.edu](http://www.socialmarketing-nutrition.ucdavis.edu).

**\* California Department of Education**

**National School Lunch Program** -- The NSLP is offered in 10,700 California schools, serving an estimated 2.8 million lunches every day, of which 75 percent are to children enrolled in free/reduced price meals. Nutrition education is encouraged but not required, and neither State nor federal funds are routinely available for nutrition education through CDE.

**National School Breakfast Program** – School breakfast is offered in 8,390 California schools, and 55 percent of the schools that offer the school breakfast program have F/RP enrollment exceeding 50 percent of the students. An estimated 938,588 breakfasts are offered every school day. Nutrition education is encouraged but not required, and neither State nor federal funds for nutrition education are routinely available through CDE.

**Child and Adult Care Food Program** – This program provides federal funding for meals to children up to age 13 in 4,596 child care settings and for impaired adults in group settings. In 2004, the daily participation in this program was 134,675 with federal funding of \$221 million in California.

**Summer Meal Program** – This program provides federal funding for meals to children, most from low-income families, when they are out of school for 15 or more consecutive days. In 2003, the daily participation in this program was 758,285 with federal funding of \$13 million in California.

**After School Snack Program** – This program provides federal reimbursement for nutritious snacks in structured after school settings, most of which serve lower-income children.

**School Breakfast Start-Up Grants** – This State-funded program seeks to improve academic performance and support good nutrition by assisting low-resource schools in offering school breakfasts.

**USDA's Team Nutrition** is an initiative of the USDA Food and Nutrition Service to support the Child Nutrition Programs through training and technical assistance for foodservice, nutrition education for children and their caregivers, and school and community support for healthy eating and physical activity. In 1999, Congress discontinued appropriating funds for Nutrition Education and Training (NET) Program altogether and replaced it with a limited program of competitive grants of up to \$200,000 per state.

**Shaping Health as Partners in Education (SHAPE)** is an initiative that supports the coordinated school health model. Currently, there are over 120 districts working together to improve the health and academic success of California school children. The SHAPE California approach for improving the health and academic success of students includes offering healthy meals in child nutrition programs; promoting comprehensive, sequential nutrition education; applying school nutrition policy and practices; and building and maintaining partnerships within the school and neighboring community that support comprehensive nutrition services.

**Garden in Every School Initiative**, a Superintendent-driven initiative that since the late 1990's and, with more recent support from the Western Growers Association (WGA), has "grown" school gardens to now be in 3,000 of California's public schools; start-up grants are available from WGA on a competitive basis.

**California Healthy Kids Resource Center** maintains a comprehensive collection of health, nutrition, and food service education materials for use by teachers, administrators, other professionals, parents, and community personnel who work with students in preschool through grade 12. Its primary funding is from CDE (School Health Connections Office, the Healthy Kids Office, and the Nutrition Services Division). The *Network* provides supplemental funding aimed at supporting the provision of suitable materials for its FSNE-eligible school partners.



**Linking Education, Activity and Food (LEAF)** grants were provided in FFY 03-05 to 12 districts to assist in the development and implementation of comprehensive nutrition policies and systemic changes that support healthy food choices and increase physical activity. Although funds are no longer available, the evaluation findings and “best practices” will guide the implementation of the new local school policy requirement and the formulation of nutrition standards for foods sold and served outside the Child Nutrition Programs.

**\* California Department of Food and Agriculture**

The **Dairy Council of California**, a large California agriculture marketing order, has developed and sponsors proven-effective nutrition/physical activity curriculum and education materials for schools at four developmental levels: pre-K, grades 1-2, grades 3-5, and grades 6-8, as well as after school, K-6. Based on the costs of interventions in schools with enrollments exceeding 50 percent of students eligible for F/RP school meals, DCC provides in-kind contributions to the *Network* that support Project LEAN’s low-fat milk campaign with Latina mothers. For more information, go to [www.dairycouncilofca.org](http://www.dairycouncilofca.org).

The **First Lady’s School Garden Initiative** led by CDFA, the *Network*, CDE, Western Growers’ Association, and the Foundation for Agriculture in the Classroom is in the planning stage. A large number of stakeholders, including Extension’s Master Gardener Program and interested business sponsors, are involved in working committees. The goal is to build on existing resources and create a focal point – a unique, fun school garden guide – for the First Lady and other champions to use in promoting and mobilizing statewide efforts to establish vibrant, sustainable gardens in every California school. *Network* co-funding helps assure that this new initiative builds on and helps develop ongoing State support for the existing *Network* infrastructure of low-resource schools.

**\* The California Children and Families Commission** – The State Commission and 58 county commissions promote school readiness in children up to age 5 years. Funded by a \$.50/pack tobacco tax, half of the funds are provided to the 58 counties to fulfill local priorities. At least 17 of the 58 county-based commissions have selected nutrition and obesity prevention for low-income children as a priority, and they provide in-kind to the *Network* in order to participate and to increase the amount of nutrition education they can offer to low-income families. The State Commission will kick off an obesity prevention initiative with a mass media public awareness campaign in 2005/2006. It will be designed to build on and support the existing WIC and *Network* initiatives.

**\* The Governor’s Obesity Initiative** – Governor Schwarzenegger proposed in his 2005-06 budget that \$6 million would have been added to the DHS budget for: local assistance projects, a Medi-Cal initiative, mass communications, surveillance, worksite wellness, and DHS coordination. The Legislature removed all but \$250,000 and called for a needs assessment and plan by mid-2006 to be part of future budget requests. Several Cabinet secretaries in addition to the Health and Human Services Agency (CHHSA) are focusing on obesity prevention. These include California Department Food & Agriculture (CDFA), the Business Transportation & Housing Agency, the Department of Parks &

Recreation, and the Governors Office of Planning & Research which deals with land use and redevelopment. The Governor's Obesity Summit scheduled for September 15, 2005, aims to mobilize efforts of major companies and organizations. It will address obesity through healthy eating and physical activity and is expected to have some, but not sole, focus on low-income issues. The *Network* infrastructure and USDA support are viewed as integral for helping to mobilize significant public/private efforts and achieve health improvements in the FSNE-eligible segment of California's population.

#### **INTRA- AND INTER-GOVERNMENTAL INFRASTRUCTURE TO COORDINATE EFFORTS AMONG PROGRAMS**

See Attachment 7 – Intra- and Inter-Governmental Infrastructure.

#### **d. Areas of California Where Food Stamp Program Eligibles Are Underserved or Have Not Had Access to FSNE previously**

All 58 counties receive Food Stamp nutrition education support through the 11 *Regional Nutrition Networks* (Attachment 2). The Regions provide technical assistance, coordination, media and public relations, educational materials, specific *5 a Day Campaign* interventions including programs with qualifying retail food stores, and some staff support for public/private Regional Collaborative that focuses on regional priorities. Low-resource schools/districts may also receive specific technical assistance from the Regional Nutrition Education Consultants who are out-stationed in their area. All these activities focus on better serving FSNE-eligible populations.

Of the nearly 200 local assistance projects operated through UC-FSNEP (43 counties) and the *Network* (about 150 local assistance projects in 37 counties), all but 10 counties have at least one direct service FSNE project. Projects may be administered through the County Extension, a public agency with a Local Incentive Award grant, or a local organization receiving a special project grant from the *Network*.

The counties covered only by the *Regional Nutrition Networks* are Alpine, El Dorado, Inyo, Kings, Lassen, Modoc, Mono, Plumas, San Benito, and Siskiyou. With two exceptions-Kings and San Benito-it is the rural, mountainous counties of Northern and Eastern California that receive that least FSNE service, and all tend to have very high rates of poverty and food insecurity. Of the 696,547 Food Stamp participating households in California, those counties have about 3,600 households, or 0.5 percent of the State's total. From a *FSNE Guidance* perspective, a barrier to providing FSNE in these counties is the low number of qualifying census tracts and school districts in these rural areas. For those 10 counties combined, there are only 12 qualifying census tracts, with 6 counties having none. There are only 150 qualifying low-resource school districts, two-thirds being in Kings and Siskiyou Counties; they tend to be very small districts without the infrastructure to administer FSNE.

UC and the *Network* will look in FFY06 into ways that these counties might be better supported; special exclusivity waivers may be needed. If possible, we will identify and

work with local agencies in those counties and the *Regional Nutrition Networks* to identify opportunities.